

New York State Department of Transportation

Yellow Flag NB2228W010

By: Ben Colangelo

Flag Date: March 21, 2022

Superseding Information:

This flag supersedes: YF NB2158W014

Structure Information

BIN: 1065318

Feature Carried: 278I278IX2M23027

Feature Crossed: 6TH AVENUE

Orientation: 8 - NORTHWEST

Region: 11 - NEW YORK CITY

County: KINGS

Political Unit: City of NEW YORK

Approximate Year Built: 1962

Posted Load Matches Inventory : Yes

Bridge Load Posting (Tons) : Not Posted for Load

Primary Owner: New York State Department of Transportation

Primary Maintenance Responsibility: 12 - State - Subcontracted to another Party

Typical or Main Span Type: 3 - Steel, 02 - Stringer/Multi-Beam or Girder

This Bridge is not a Ramp

Number of Spans: 322

Verbal Notification Information

Person Notified: Heinz Joachim, P.E.

Date: March 21, 2022 12:30:00 PM

Of: NYSDOT Region 11

Signature Information

Signature: Ben Colangelo, P.E. 068498

Date: April 07, 2022

Reviewed By: Robert Kemp

Date: April 07, 2022

Attachments: 5

Flagged Elements

Parent Element	Element	Total Quantity	Unit
Span Number : 103			
	107 - Steel Open Girder/Beam	781	ft
	PR831 - Steel Beam End	34	each

Flagged Condition Description

This Yellow Flag No. NB2228W010 is supersedes existing Yellow Flag No. NB2158W014.

Location: Span 103 Girder G3 at Pier 102

Description: The end of Girder G3 in Span 103 at Pier 102 exhibits severe corrosion resulting in an overall web bearing area section loss of approximately 32% (previously 30%) and an overall shear web area section loss of approximately 79% (previously 77%) with an average overall localized section loss of approximately 38% (previously 36%) for 5"L x 5"H area directly above the bearing below the guide angle (Photo 2). The end of the girder web, (behind the deteriorated guide angle), exhibits a 15"L x 2"W corrosion hole approximately 9" from the bottom flange (Photo 3). Also, the lower web of the girder adjacent to the web bearing area exhibits an average of 20% section loss for 2'L x 3"H above the bottom flange (Refer to sketch for more details). No significant change from previous inspection.

This girder is located above an expansion bearing.

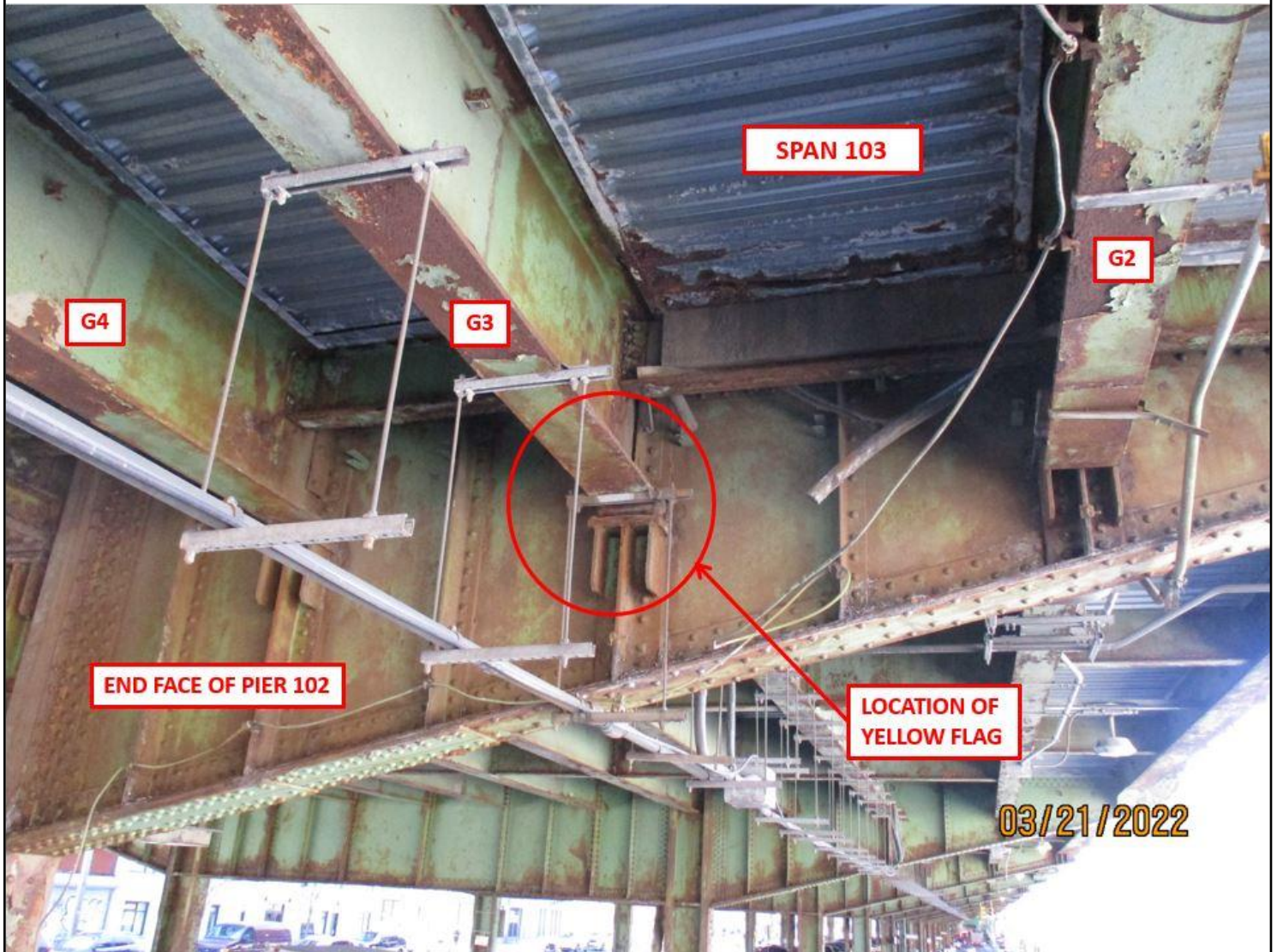
Notes:

- 1.The adjacent Girder G2 at Pier 102 exhibits 20% section loss at the lower web above the bottom flange in front of the bearing with a 1" diameter corrosion hole at the upper web adjacent to the top pre-drilled guide angle hole.
- 2.The adjacent Girder G4 at Pier 102 exhibits up to 30% section loss at the lower web above the bottom flange.
- 3.The right guide angle exhibits a 12"L x 4"W corrosion hole between the top and bottom pre-drilled guide angle holes.
- 4.The flagged condition is located above the left lane on 3rd Avenue WB roadway and was accessed using a 30ft bucket truck with double left lane closure.

Flag Photographs

Photo Number: 1

Photo Filename: 305-3086.JPG



Attachment Description: General view of the flagged condition at Girder G3 in Span 103 at Pier 102. Looking Begin.

Photo Number: 2

Photo Filename: 305-3076.JPG



Attachment Description: The right face of Girder G3 in Span 103 at Pier 102. The end of the girder exhibits severe section loss at the lower web above the bottom flange at the bearing area as well as in the web height behind the guide angle with a 15" x 2" corrosion hole at the end of the girder web. Looking Left.

Photo Number: 3

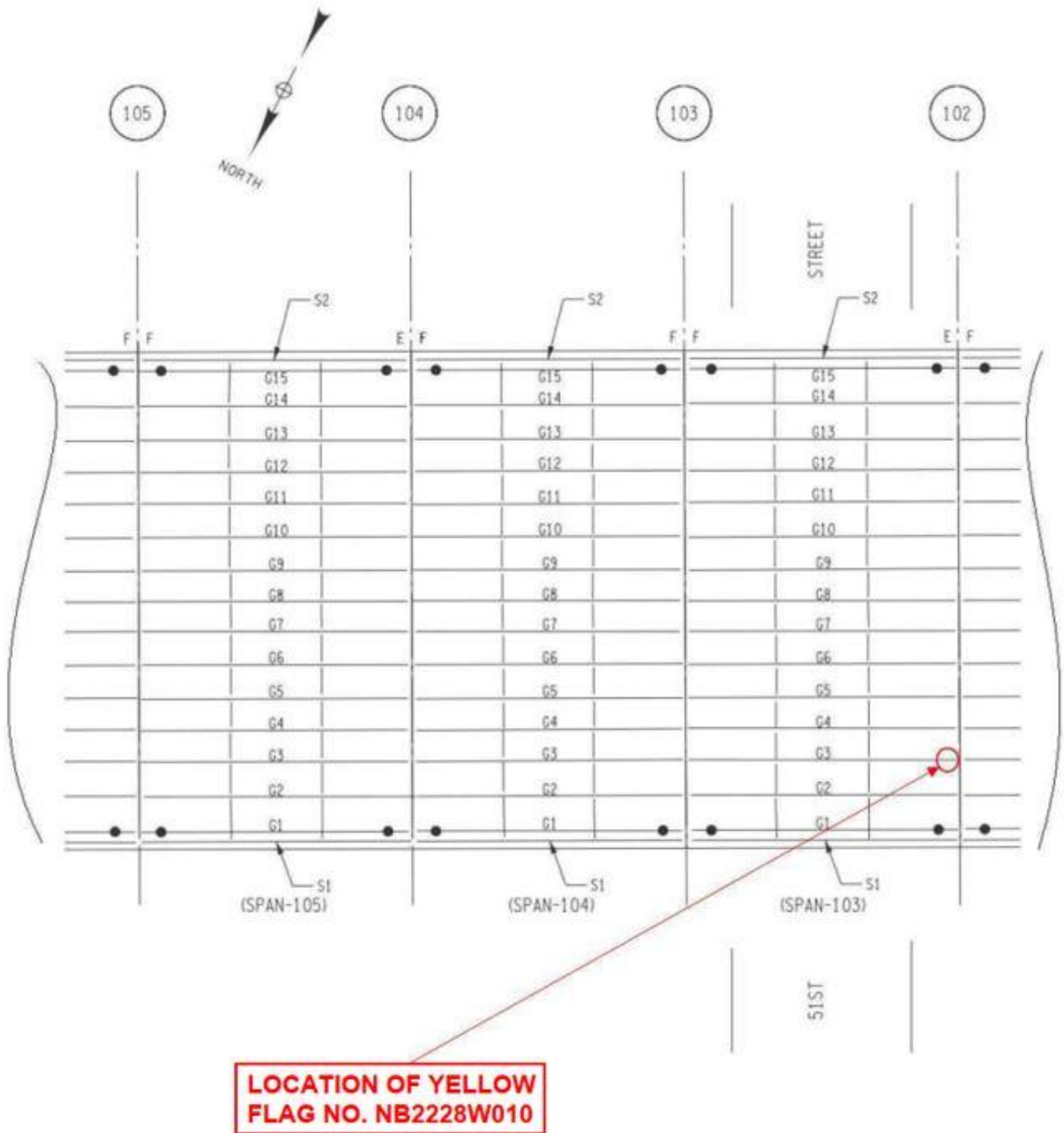
Photo Filename: 305-3068.JPG



Attachment Description: The right face of Girder G3 in Span 103 at Pier 102. The end of the girder web exhibits a 15" x 2" corrosion hole with section loss adjacent to the web hole, behind the deteriorated guide angle. Looking Left.

Photo Number: 4

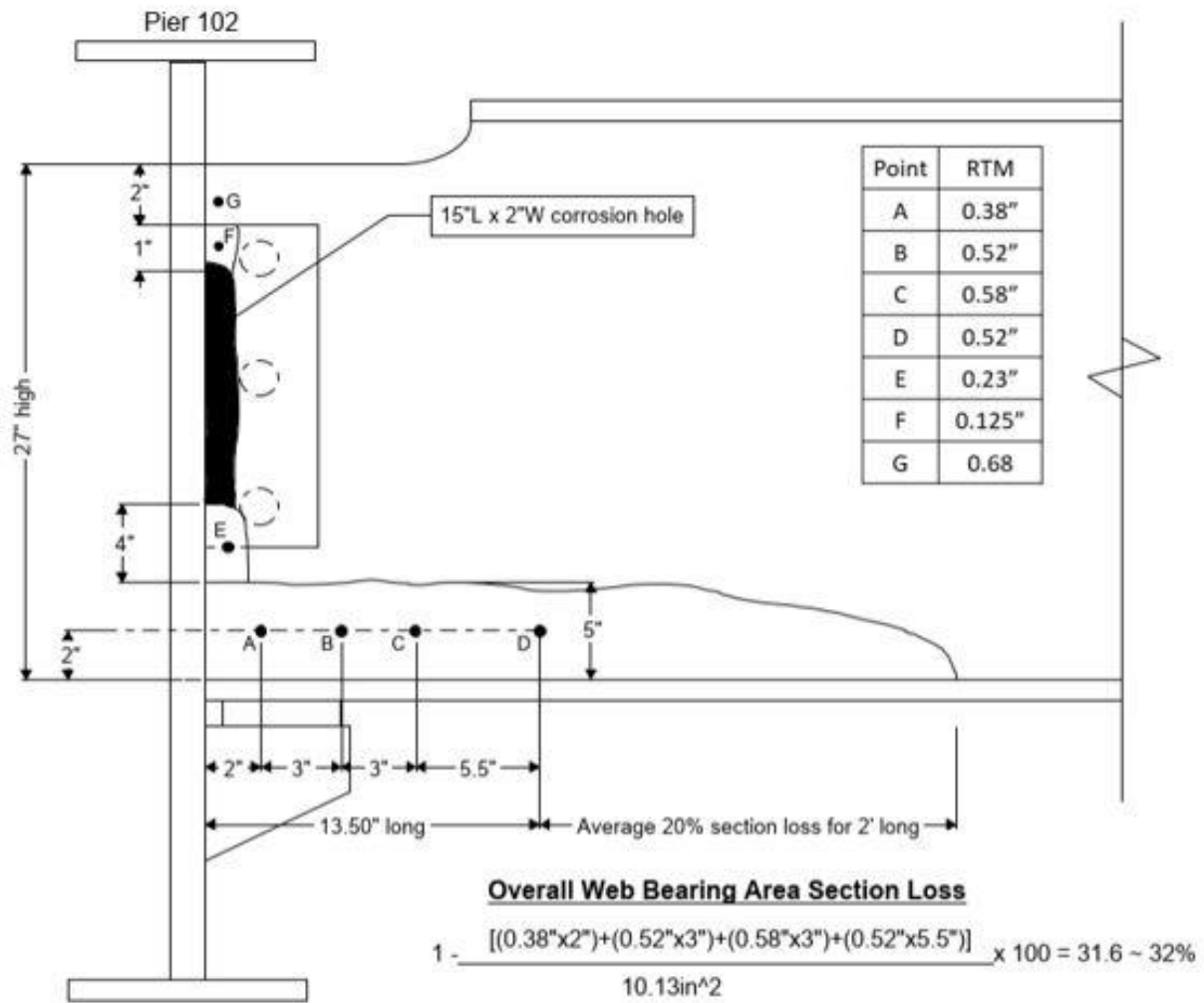
Photo Filename: FRAMING PLAN.JPG



Attachment Description: BIN 1065318, Framing Plan Spans 103-105

Photo Number: 5

Photo Filename: GIRDER G3 SKETCH.JPG

**Notes:**

- As-built web thickness = 0.75"
- Length of bearing area = 18 x web thickness = 18 x 0.75" = 13.50"
- Overall bearing area = 13.50" x 0.75" = 10.13 in²
- As-built shearing web area = 27" x 0.75" = 20.25 in²
- Adjacent Girder G2 exhibits 20% section loss at the lower web above the bottom flange in front of the bearing with 1" diameter corrosion hole at the upper web adjacent to the top pre-drilled hole.
- Adjacent Girder G4 exhibits up to 30% section loss at the lower web above the bottom flange
- Right guide angle at Girder G3 exhibits 12" L x 4" W corrosion hole. This defect was not shown in the sketch for clarity purposes to display girder defects.

Right Face of Girder G3 Sketch in Span 103 at Pier 102

N.T.S.

Attachment Description: Sketch of Girder G3 Section Loss